

Study shows type 2 diabetics can live longer than people without the disease

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Patients treated with a drug widely prescribed for type 2 diabetes can live longer than people without the condition, a large-scale study involving over 180,000 people has shown.

The findings indicate that a drug known as [metformin](#), used to control glucose levels in the body and already known to exhibit anticancer properties, could offer prognostic and prophylactic benefits to people without [diabetes](#).

Published in a leading diabetes journal, *Diabetes, Obesity and Metabolism* by scientists from Cardiff University, the study set out to compare the survival of [diabetes patients](#) prescribed with metformin with patients prescribed with another common diabetes drug called sulphonylurea.

Importantly, the [life expectancy](#) of these cohorts was also compared against non-diabetics who were matched based on criteria that included age, gender, same general practice, smoking status and clinical status.

"What we found was illuminating," said lead author Professor Craig Currie from Cardiff University's School of Medicine.

"Patients treated with metformin had a small but

statistically significant improvement in survival compared with the cohort of non-diabetics, whereas those treated with sulphonylureas had a consistently reduced survival compared with non-diabetic patients. This was true even without any clever statistical manipulation.

"Surprisingly, the findings indicate that this cheap and widely prescribed diabetic drug may have beneficial effects not only on patients with diabetes but also for people without, and interestingly, people with type 1 diabetes. Metformin has been shown to have anti-cancer and anti-cardiovascular disease benefits. It can also reduce pre-diabetics' chances of developing the disease by a third.

"This does not mean that people with [type 2 diabetes](#) get off Scott free. Their disease will progress and they will be typically switched to more aggressive treatments. People lose on average around eight years from their life expectancy after developing diabetes. The best way to avoid the condition altogether is by keeping moderately lean and taking some regular light exercise."

In the next phase of the research, Professor Currie plans to investigate how patients prescribed with metformin as a first line therapy can best be treated thereafter to ensure that their life expectancy can be brought closer in line with the national average.

Type 2 diabetes affects 8% of the US population and 6% of the UK population.

Effective glucose control in diabetics is important in reducing the risk of microvascular complications such as stroke or coronary artery disease. The stymying of these conditions can initially be achieved through diet and exercise, but glucose lowering medication is required in most patients with progressing diabetes.

Metformin is recommended as first line therapy for type 2 diabetes in the current American Diabetes

Association and the European Association for the study of diabetes guidelines. The National Institute for Health and Care Excellence (NICE) also recommend the drug.

Sulphonylureas are commonly prescribed if metformin is deemed by practitioners to be an unsuitable course for treatment. Unlike metformin, sulphonylureas can cause weight gain, hypoglycaemia and an impaired recovery after heart attacks. Conversely, metformin is associated with beneficial effects, including improved cardiac health and an ability to fight the onset of certain cancers.

Data used in study came from the UK Clinical Practice Research Datalink, representing around 10% of the UK population, where researchers identified 78,241 patients who were prescribed metformin as a first-line therapy and 12,222 patients prescribed a sulphonylurea as a first-line therapy. These were then each matched against non-diabetic patient.

Provided by Cardiff University

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